Application for University of Utah

Graduate Studies in the
Department of Chemistry

Apply Online:

http://grad.chem.utah.edu/chem-app.html

University of Utah
Salt Lake City, Utah

Application

(No Fee Required)

Graduate Teaching and Research Assistantships in the Department of Chemistry

This applications should be filled out completely and forwarded with all supporting documents to:

Graduate Admissions Committee
Department of Chemistry
University of Utah
315 South 1400 E. Rm. ~~5516~~ HEB
Salt Lake City, UT 84112

(To be filled in by candidate) Date_____

Semester applying to begin Graduate Program:
(Check one only)

☐ Fall (Aug.) ☐ Spring (Jan.) Year applying for _____

Students are normally admitted in the fall semester, but Spring admission is sometimes possible.

1. Name (Print)_____
(Last) (First) (Middle)
2. Social Security No. (optional) _____
3. Present Address_____
4. Permanent Address (if different from above)_____
5. Daytime telephone no. _____Evening telephone no._____

   Fax no._____
6. E-mail addresses: _____
7. Degree Sought:_____ Ultimate Professional Goal _____
8. Please list all colleges attended, dates, degrees, cumulative grade point averages, and science-only grade point averages. (Official transcripts should be sent directly by colleges attended.)

School	Dates/Degree	Cum. GPA/Science GPA

9. Please list the scores and percentiles for the Graduate Record Exam (Please attach a photocopy of the GRE score sheet or have GRE scores sent directly to the Dept. of Chemistry). Date taken:_____

   Verbal:_____Quantitative: _____Analytical:_____Chemistry: _____

University of Utah
Salt Lake City, Utah

Application

(No Fee Required)

Graduate Teaching and Research Assistantships in the Department of Chemistry

This applications should be filled out completely and forwarded with all supporting documents to:

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Department of Chemistry
University of Utah
315 South 1400 E. Rm. ~~F516~~ HEB
Salt Lake City, UT 84112

(To be filled in by candidate) Date_____

Semester applying to begin Graduate Program:
(Check one only)

☐ Fall (Aug.) ☐ Spring (Jan.) Year applying for _____

Students are normally admitted in the fall semester, but Spring admission is sometimes possible.

1. Name (Print)_____
(Last) (First) (Middle)
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3. Present Address_____
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8. Please list all colleges attended, dates, degrees, cumulative grade point averages, and science-only grade point averages. (Official transcripts should be sent directly by colleges attended.)

School	Dates/Degree	Cum. GPA/Science GPA

9. Please list the scores and percentiles for the Graduate Record Exam (Please attach a photocopy of the GRE score sheet or have GRE scores sent directly to the Dept. of Chemistry). Date taken:_____

   Verbal:_____Quantitative: _____Analytical:_____Chemistry: _____
10. Please submit TOEFL and TSE scores if you are required to take them for admission into the program.

    TOEFL:_____ Date taken: _____ TSE: _____ Date taken: _____
11. Scholastic honors and achievements:_____
12. Describe any past teaching experience: _____
13. Describe any previous research experience or training you have had in chemistry:_____
14. List any scientific publications:_____
15. Indicate which of the following is currently of most interest to you as a graduate research area in chemistry:

    Analytical:_____
    Biological:_____
    Inorganic:_____
    Organic:_____
    Physical:_____

    Please list any specific research interests and the names of specific professors you would be interested in speaking with
16. Please list any other chemistry graduate programs or professional programs in areas other than chemistry to which you have applied:_____

    What influenced you to apply to the University of Utah? From what source did you learn about our program? _____
17. Give names and addresses of three persons well acquainted with you and your work that you are asking to write letters of recommendation on your behalf. (The persons recommending you should send letters directly to the Admissions Committee.)

18. List any student(s) from your institution who attended graduate school at the University of Utah in Chemistry within the last five years:_____
19. On a separate page, briefly describe your reasons for pursuing an advanced degree in chemistry. Include any special qualifications or other information pertinent to your application.

OPPORTUNITY TO IDENTIFY

Your response to any of the following is optional. This information will assist the University in making its equal opportunity/affirmative action reports to the federal government. The information will also assist the University's affirmative action program. This information will be maintained in the Graduate Admissions office and will not be made available to the Graduate Admissions Committee until after final admissions decision is made.

DATE OF BIRTH

_____

GENDER (SEX)

Female [__] Male [__]

REFERRAL SOURCE

1 [__] Professor
2 [__] Alumni
3 [__] Name Recognition
4 [__] Poster
5 [__] Conference or guest speaker
6 [__] Internet
7 [__] Other _____

Are you a U.S. citizen or permanent resident?_____If not, of what country are you a citizen? _____

RACE (Check all that apply)

[__] 1 - White (not Hispanic).
[__] 2 - Black (not Hispanic).
[__] 3 - Hispanic.
[__] 4 - Asian or Pacific Islanders.
[__] 5 - American Indian or Alaskan Native.
[__] 6 - Other _____

THE UNIVERSITY OF UTAH

CONFIDENTIAL REPORT ON APPLICANT FOR GRADUATE STUDY

Please Return to:
Department of Chemistry
Attn: Graduate Admissions
University of Utah
315 S. 1400 E. Rm. ~~1546~~ HEB
Salt Lake City, UT 84112
Phone: (800) 444-8638 ext. 14393

Name of Applicant

_____

With respect to the consideration of my admission to the Graduate Program in Chemistry at the University of Utah, I hereby waive my right to access to any confidential letters and statements that may be collected provided that upon my request I receive notice of the names of all persons making confidential recommendations and that such recommendations will be used only for the purpose of evaluating me for admission to the graduate program.

Signature of Applicant

_____

Name of person giving recommendation:

_____

Title: _____

Institution: _____

Address: _____

Phone: _____ Email: _____

Signature: _____ Date: _____

Please attach additional paper(s) if necessary

Department of Chemistry
315 South 1400 East
Salt Lake City, Utah 84112
(801) 581-6626
FAX: (801) 581-8433

THE UNIVERSITY OF UTAH

CONFIDENTIAL REPORT ON APPLICANT FOR GRADUATE STUDY

Please Return to:
Department of Chemistry
Attn: Graduate Admissions
University of Utah
315 S. 1400 E. Rm. ~~1516~~ HEB
Salt Lake City, UT 84112
Phone: (800) 444-8638 ext. 14393

Name of Applicant

_____

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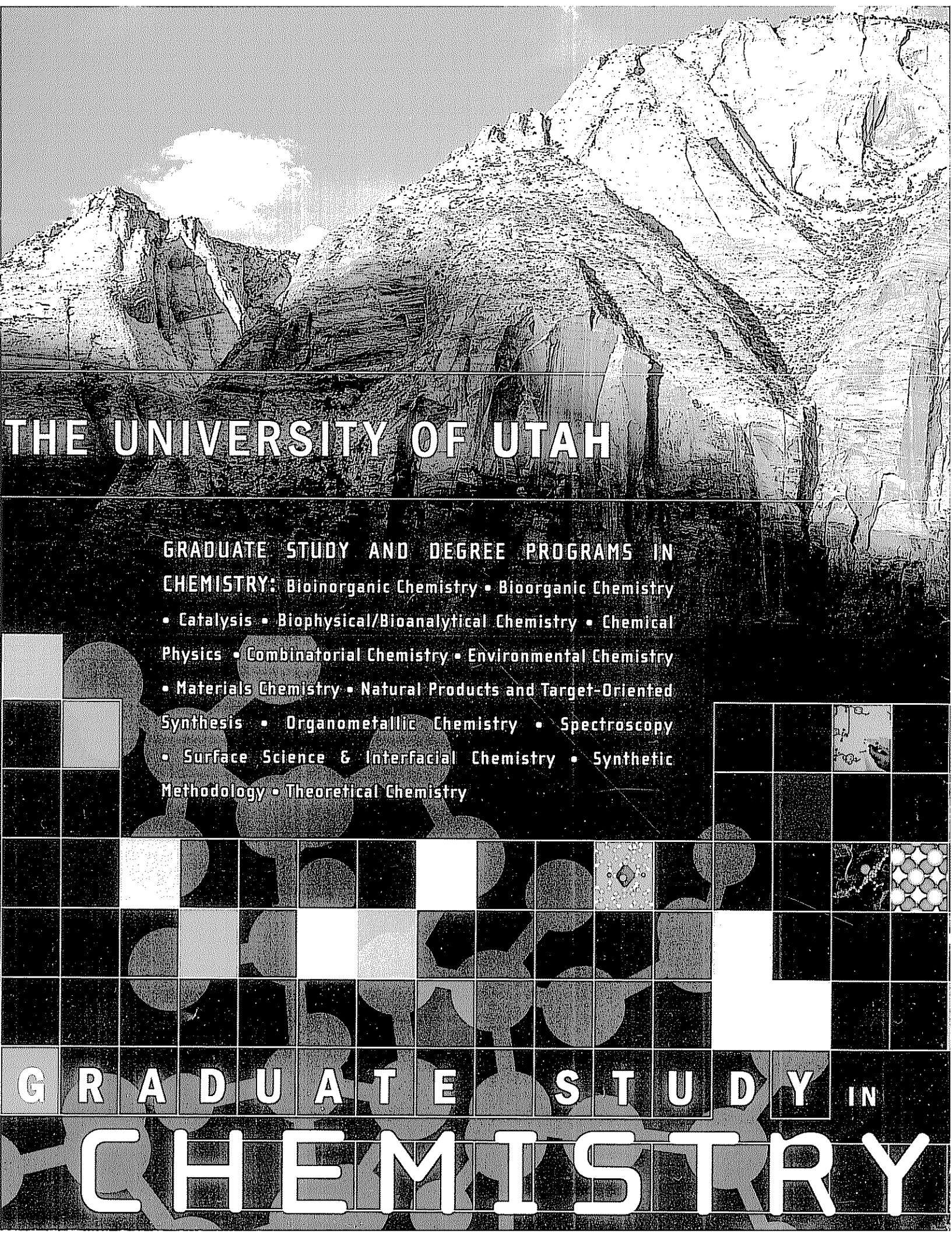
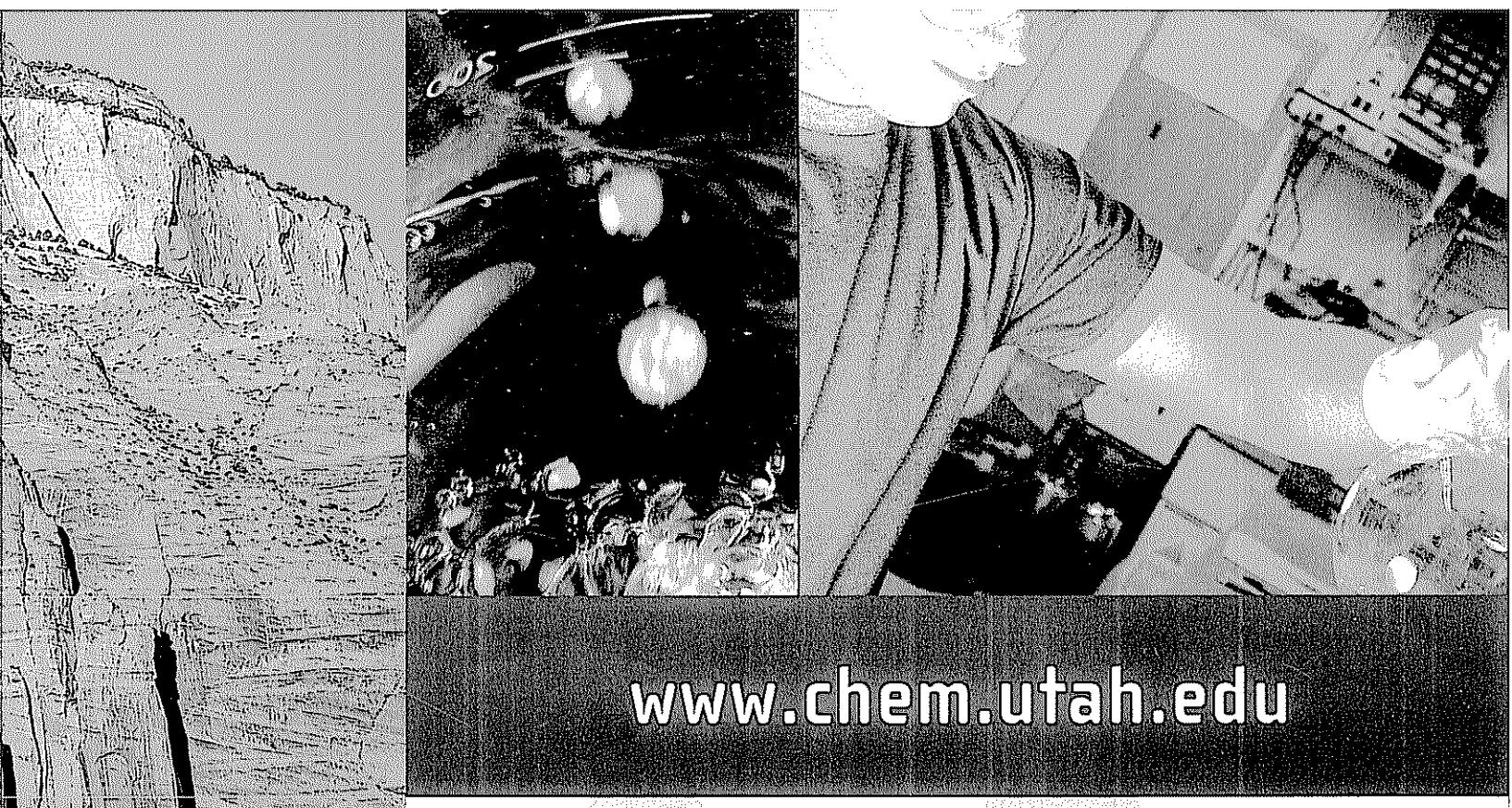


THE UNIVERSITY OF UTAH

GRADUATE STUDY AND DEGREE PROGRAMS IN CHEMISTRY: Bioinorganic Chemistry • Bioorganic Chemistry • Catalysis • Biophysical/Bioanalytical Chemistry • Chemical Physics • Combinatorial Chemistry • Environmental Chemistry • Materials Chemistry • Natural Products and Target-Oriented Synthesis • Organometallic Chemistry • Spectroscopy • Surface Science & Interfacial Chemistry • Synthetic Methodology • Theoretical Chemistry

GRADUATE STUDY IN CHEMISTRY



www.chem.utah.edu

RESEARCH AREAS

In modern chemical research, the lines between traditional disciplines have become substantially blurred. Most research groups in Chemistry at the University of Utah are engaged in interdisciplinary research involving one or more of the specific topics listed below. Collaborations are both within the department and externally.

BIOINORGANIC CHEMISTRY • cofactor chemistry (B12, hemes, iron-sulfur clusters) • mechanisms of metalloenzymes • metal-induced DNA and protein damage • metalloenzyme models
FACULTY > Burrows • David • Grissom • Hegg

BIOORGANIC CHEMISTRY • bioconjugate chemistry • DNA damage and repair • drug design & delivery • enzyme mechanism & inhibition • free radicals • isoprenoid biochemistry • RNA function and recognition
FACULTY > Beal • Burrows • David • Grissom • Poulter

BIOPHYSICAL/BIOANALYTICAL CHEMISTRY • biomolecule interactions • computational analysis of biopolymers • laser spectroscopy • membrane chemistry • protein and nucleic acid NMR • biopolymer surface analysis
FACULTY > Armentrout • Conboy • David • Flynn • Grant • Grissom • Harris • Shumaker-Parry • White • Wight • Voth

CATALYSIS • catalysis for organic synthesis • metal cluster chemistry • models of enzyme catalytic sites
FACULTY > Anderson • Armentrout • Ernst • Hegg • Keck • Louie • Morse • Richmond • Sigman • Truong

PH.D. ROADMAP

FIRST YEAR

- Eight half-semester courses, completed in the 1st year
  - — 4 divisional, 2 breadth, and 2 elective courses
- Select Ph.D. thesis advisor
  - — Attend faculty research presentations in the Fall
  - — Meet individually with at least 4 faculty
- Begin research

SECOND YEAR

- Continue research
- Departmental seminar on Ph.D. research

THIRD YEAR

- Preliminary oral examination on proposed Ph.D. thesis research
- Original research proposal
- Continue research

FOURTH YEAR

- Complete research, write dissertation
- Oral defense of Ph.D. thesis

HOW TO APPLY

In order to be admitted to graduate studies in the Department of Chemistry at the University of Utah, a student must have graduated from an accredited four-year college, university, or institute of technology. Application materials should be received by March 1 to guarantee priority consideration, although later applications can be considered. There is no application fee.

TWO WAYS TO APPLY

- Apply or obtain application online at: http://grad.chem.utah.edu/ChemistryApplication.html
- Request an application by email to jhoovey@chem.utah.edu or by contacting the Graduate Admissions office at (800) 444-8638 ext. 4393

WHAT YOU NEED TO SUPPLY

1> A completed application form submitted either online or by mail.

2> Transcripts from all college-level institutions attended, whether or not a degree was received.

3> Three letters of recommendation, at least one of which should be from the college or university most recently attended. Forms are enclosed for this purpose, although letters on letterhead are acceptable.

4> The Graduate Record Examination (GRE) is required. Please send a copy of the score report.

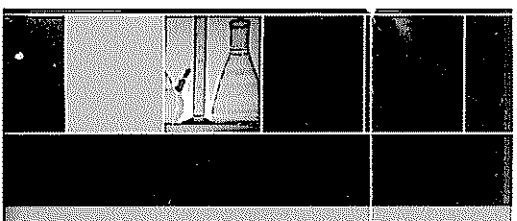
Non-native English Speaking Applicants

5> An official copy of the TOEFL test report is required. A spoken English test may be administered by phone prior to acceptance and is required for appointment as a teaching assistant upon arrival. Please request that letters of recommendation comment on English speaking and writing abilities.

When all of the above materials have been received by the Chemistry Admissions Committee, your application will be evaluated for admission. Any questions regarding the admission process should be directed to our Graduate Admissions Off ce at 1-800-444-8638, ext. 1-4393 to jhoovey@chem.utah.edu.

NOTE: Chemistry students offered admissions and support by the Chemistry Graduate Admissions Committee will then be asked to submit a final application form to the University's Graduate School for final approval.

www.chem.utah.edu



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-8638 ext. 4393

PPLY

ed either online or by mail.
utions attended, whether or not a

ast one of which should be from the
nded. Forms are enclosed for this
d are acceptable.
E) is required. Please send a copy of

port is required. A spoken English test
or to acceptance and is required for
upon arrival. Please request that letters
sh speaking and writing abilities.

received by the Chemistry Admissions
for admission. Any questions regarding
to our Graduate Admissions Office at
hem.utah.edu.

sions and support by the Chemistry
asked to submit a final application form
approval.

CHEMICAL PHYSICS • high-energy materials • ion-molecule reactions • state-to-state reaction dynamics • thermochemistry • electronic structure
FACULTY > Anderson • Armentrout • Breckenridge • Grant • Morse • Wight

COMBINATORIAL CHEMISTRY • asymmetric catalysts • RNA catalysts • RNA recognition • self-assembly
FACULTY > Beal • Burrows • Sigman • Stang

ENVIRONMENTAL CHEMISTRY • chemistry of fuels • detoxification • metal toxicity • particulates and aerosols • solvent extractions
FACULTY > Armentrout • Burrows • Eyring • Harris • Hegg

MATERIALS CHEMISTRY • molecule-based magnets • nanostructures • polymers • solid-state chemistry
FACULTY > Grant • Louie • Miller • Stang • White • Zharov

NATURAL PRODUCTS AND TARGET-ORIENTED SYNTHESIS • biosynthesis • total synthesis • molecular design
FACULTY > Keck • Poulter • Rainier • Sigman • Zharov

ORGANOMETALLIC CHEMISTRY • coordination polymers • organofluorine chemistry • pentadienyl complexes • solid-state chemistry • transition metal catalysis
FACULTY > Armentrout • Ernst • Louie • Miller • Rainier • Richmond • Sigman • Stang • Zharov

SPECTROSCOPY • electrochemistry • high resolution optical spectroscopy • biological NMR • laser photolysis • mass spectrometry • multi-photon ionization • NMR of solids • non-linear spectroscopy • Raman spectroscopy • SPR spectroscopy • ZEKE spectroscopy • high resolution spectroscopy
FACULTY > Anderson • Armentrout • Breckenridge • Conboy • Eyring • Flynn • Grant • Harris • Morse • Shumaker-Parry

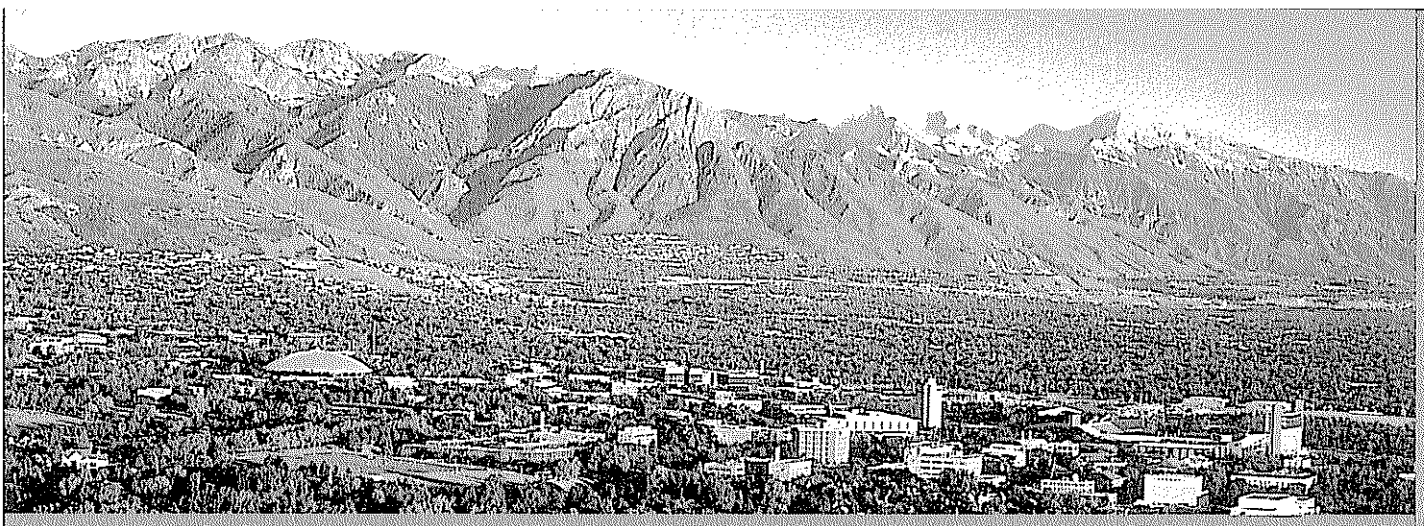
SURFACE SCIENCE & INTERFACIAL CHEMISTRY • gas/solid & liquid/solid interactions • molecular dynamics at surfaces • surface structure • protein-surface interactions • scanning electrochemical microscopy
FACULTY > Anderson • Conboy • Harris • Shumaker-Parry • Truong • White • Zharov

SYNTHETIC METHODOLOGY • asymmetric synthesis • bioconjugate synthesis • chiral Lewis acid catalysts • cyclization methods • heterocycle synthesis
FACULTY > Keck • Louie • Rainier • Sigman

THEORETICAL CHEMISTRY • centroid molecular dynamics • density functional theory • electron-electron interactions • electron transfer theory • proton transfer in biological systems • solvation models
FACULTY > Simons • Truong • Voth

For more information:

www.chem.utah.edu/research

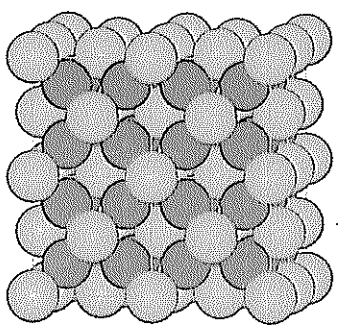


www.chem.utah.edu

THE UNIVERSITY OF UTAH

Founded in 1850, the University of Utah is the oldest state university west of the Missouri River. The University includes several research institutes (i.e. Huntsman Cancer Institute) and a highly ranked medical school, in which collaborations with the chemistry department are numerous. It has 28,437 students, of which 5,983 are graduate students, along with 2,750 faculty and 11,500 staff members.

The University of Utah is accredited by the Northwest Association of Schools and Colleges, and is classified by the Carnegie Foundation as one of 50 comprehensive Research 1 universities from among 3,700 U.S. institutions. The main University of Utah website is located at www.utah.edu.



RESEARCH FACILITIES

Technical support is provided by glassblowing, machine & electronics shops, and stockroom. Instrumentation for analytical and research needs is serviced by skilled professionals. Students have direct access to state of the art facilities for magnetic resonance, mass spectrometry, UV-Vis-IR spectroscopy, and X-ray structure determination.

FOR MORE DETAILED ABOUT SPECIFIC FACILITIES SEE:

NMR:
www.chem.utah.edu/chemistry/facilities/nmr/nmr.html

Mass Spectrometry
www.chem.utah.edu/chemistry/facilities/masspec/index.htm

X-Ray
www.chem.utah.edu/chemistry/facilities/xray/xray.html

Computer Center
www.chem.utah.edu/facilities/CCC/

Glass Shop
www.chem.utah.edu/facilities/glassblowing/

UTAH CHEMISTR
DEPARTMENT
AT A GLANCE

PERSONNEL

Faculty
Graduate Students
Postdoctoral Fellows
Visiting Faculty
Technical Support Staf

STATISTICS (FOR 2003)

Research Dollars$10.7
Publications
Invited Seminars by Fa

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glassblowing, machine &
om. Instrumentation for
is serviced by skilled
ct access to state of the
nce, mass spectrometry,
structure determination

IFIC FACILITIES SEE:

acilities/nmr/nmr.html

ilities/masspec/index.htm

acilities/xray/xray.html

c/

assblowing/

UTAH CHEMISTRY DEPARTMENT AT A GLANCE

PERSONNEL

Faculty	30
Graduate Students	188
Postdoctoral Fellows	46
Visiting Faculty	10
Technical Support Staff	17

STATISTICS (FOR 2003)

Research Dollars	$10.7 million
Publications	158
Invited Seminars by Faculty	219

FACULTY AT A GLANCE

CURRENTLY 30 TENURED OR TENURE-TRACK FACULTY ARE IN THE DEPARTMENT OF CHEMISTRY, INCLUDING:

- 6 assistant professors
- 4 associate professors
- 14 full professors
- 6 distinguished professors

OUR CURRENT FACULTY HAVE WON NUMEROUS PRIZES AWARDED BY THE UNIVERSITY OF UTAH, INCLUDING:

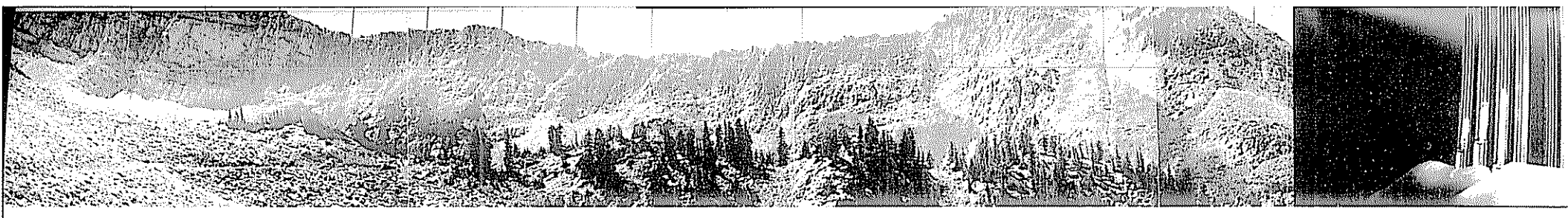
- 10 Distinguished Research Awards, a prize that is awarded to only 3 faculty members each year
- 6 Distinguished Teaching Awards or Presidential Teaching Awards
- 3 Rosenblatt Prizes, the highest honor that the University gives, reserved for its most distinguished faculty
- 9 Student Choice Awards for Excellence in Teaching

OUR CURRENT FACULTY HAVE WON A LARGE NUMBER OF NATIONAL AND INTERNATIONAL AWARDS, SOME OF WHICH INCLUDE:

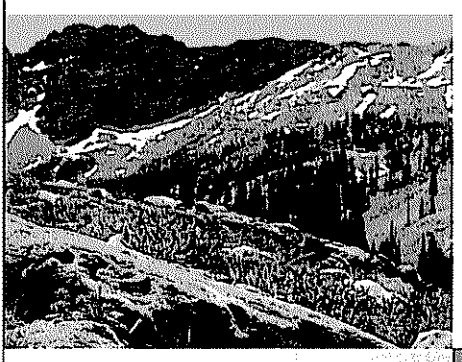
- 1 member of the National Academy of Sciences (Stang)
- 11 ACS Awards (Grant, Harris, Miller, Poulter, Richmond, Stang, and White)
- 10 Alfred P. Sloan Research Fellowships (Anderson, Armentrout, David, Harris, Keck, Poulr, Richmond, Simon, Voth, Wight)
- 7 Dreyfus Teacher-Scholar Awards (Anderson, Armentrout, Beal, Breckenridge, Sigman, Simon, Voth)
- 5 Dreyfus New Faculty Awards (Anderson, Richmond, Voth, Armentrout, Zharov)
- 4 Guggenheim Fellowships (Breckenridge, Eyring, Simons, Voth)
- 2 Cottrell Scholar Awards (Armentrout, Hegg)
- 2 Pfizer Awards, 1 Research Award for Synthetic Organic Chemistry (Keck) and 1 Creativity in Organic Chemistry (Sigman)
- 1 Pittsburgh Analytical Award (Harris)
- 1 Reilly Award from the Society of Electroanalytical Chemistry (White)
- 1 Faraday Medal from the Royal Society of Chemistry (White)
- 10 Fellows of the American Association for the Advancement of Science
- 3 Fellows of the American Physical Society (Armentrout, Breckenridge, Voth)

FOR INDIVIDUAL FACULTY WEB PAGES SEE:

www.chem.utah.edu/people



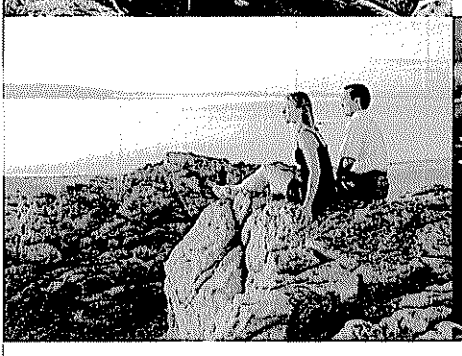
LIFE IN SALT LAKE CITY, UTAH

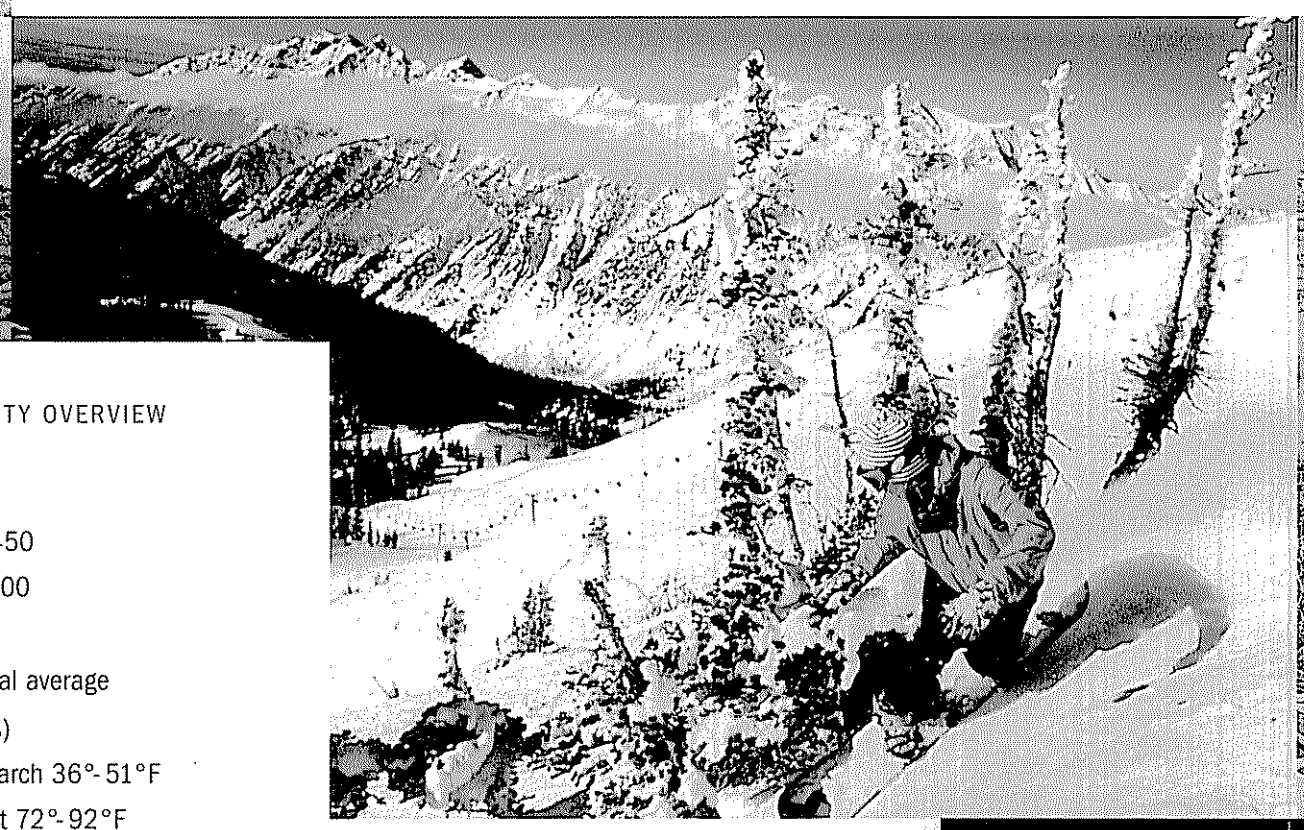


ENVIRONMENT AND RECREATION

The University of Utah is located at the foot of the Wasatch Mountains and overlooks Salt Lake City - the cultural, commercial, and professional center of the Intermountain West. Metropolitan Salt Lake City has a population of one million and offers symphony, theater, ballet, modern dance, and opera, as well as professional baseball, soccer, basketball, and rodeos. An array of restaurants, shops, and theaters that are accented by the charm of the past can be found throughout the city. At night, a variety of local clubs and restaurants offer music ranging from jazz, bluegrass, country, and rock to big band. Annually, Utah offers the famous Sundance Film Festival, annual arts festivals in Salt Lake and Park City, and the Shakespearan festival in Cedar City.

Utah has four distinct seasons and ready access to the outdoors. Skiing is superb at any of the seven world class ski resorts, such as Alta, Snowbird and Park City, just minutes from campus. Possible activities include backpacking in the Ui running the Colorado or G visiting any of the 20 natio monuments that are within a c accessible national parks are Canyon, Canyonlands, Capito Teton, Yellowstone, and Zion climbing, boating, horseback hunting, and world-class s available at some of the mo recreation sites in North Am near the campus provide chall for cycling, rock climbing, and



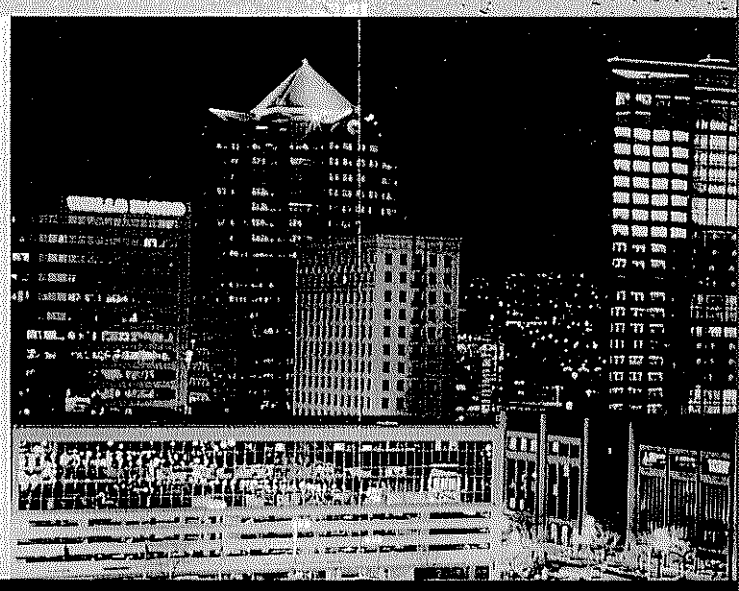


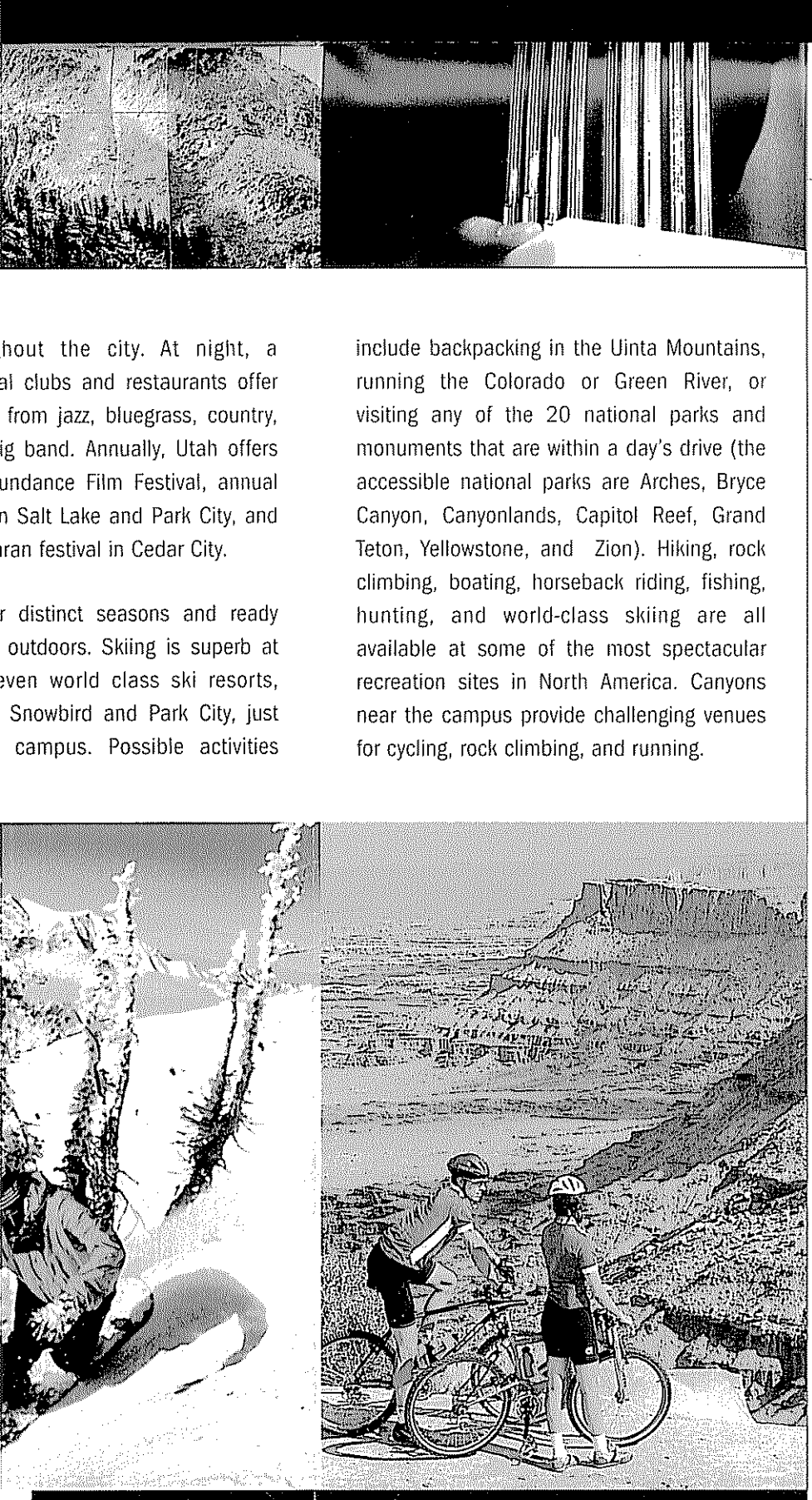
LIVING IN SALT LAKE CITY OVERVIEW

- **Accommodations**
  - One bedroom/$350-450
  - Two bedroom/$450-700
- **Cost of Living**
  - Lower than the national average
- **Weather** (Average highs)
  - Winter: November - March 36°- 51°F
  - Summer: May - August 72°- 92°F
- **Transportation**
  - UTA bus & TRAX (light rail)
    Free for U of U students
- **Recreation**
  - 7 National Parks within 4 to 6 hours drive
  - Local National Forests and Skiing
  - Thriving Arts and Cultural Activities

More housing information can be found on the University website at:
http://www.utah.edu/students/housing.html

SALT LAKE CITY was ranked as the best place to live in North America in the 1999 edition of the highly regarded Places Rated Almanac. The quadrennial statistical study rates 354 U.S. and Canadian metro areas on nine quality of life factors including the cost of living, transportation, jobs, education, climate, crime, arts, health care, and recreation.





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r distinct seasons and ready outdoors. Skiing is superb at even world class ski resorts, Snowbird and Park City, just campus. Possible activities include backpacking in the Uinta Mountains, running the Colorado or Green River, or visiting any of the 20 national parks and monuments that are within a day's drive (the accessible national parks are Arches, Bryce Canyon, Canyonlands, Capitol Reef, Grand Teton, Yellowstone, and Zion). Hiking, rock climbing, boating, horseback riding, fishing, hunting, and world-class skiing are all available at some of the most spectacular recreation sites in North America. Canyons near the campus provide challenging venues for cycling, rock climbing, and running.

FINANCIAL SUPPORT

ENTERING STUDENTS

Most entering graduate students are granted teaching fellowships that provide a total maximum annual stipend of $19,500 with a tuition waiver, amounting to an additional indirect support of approximately $8,000 for out-of-state students. Support at the Research Assistant rate is available for the summer semester. This is presently a maximum of $8,000. The teaching responsibilities of fellows usually involve supervision of small laboratory sections and recitations and require an average of about eight contact hours per week with an additional eight to twelve hours of preparation and grading. Teaching fellows work in collaboration with one or more faculty members. A limited number of new students receive Henry Eyring Research Fellowships to do research in the summer preceding their first year in graduate school.

CONTINUING STUDENTS

Most advanced graduate students receive research assistantships. The maximum stipend that a faculty member may pay in 2004-2005 is $20,500. These appointments are funded by grants and contracts made to individual professors by external agencies. All students in "good standing" (progressing toward a Ph.D. in a timely fashion) are guaranteed support for five years whether it is through a TA or research assistantship. Additionally, all TA's and RA's in good standing receive a full waiver of tuition costs for up to five years of graduate education as a PhD student.

OTHER FELLOWSHIPS AND AWARDS

There are a number of departmental and University awards offered. These are made possible in part by a long-term gift from the Dow Chemical Company.

Epstein, Eyring, Giddings, Parry, or Walling Fellowship for Incoming Students - An award of $1,000 to $2,500 is made to outstanding new graduate students.

Some available awards during your graduate education include:

- NIH Training Grant in Biological Chemistry (1 year of stipend)
- Cheves T. Walling Graduate Research Award ($1000).
  Outstanding Ph.D. Dissertation
- Graduate Research Fellowship ($20,000).
  University award to outstanding continuing students.